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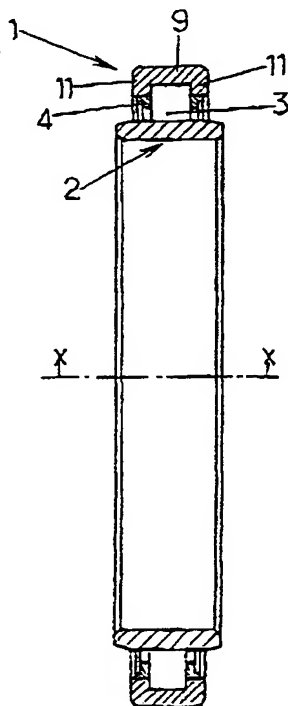
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(54) Title: ROLLING BEARING WITH NITRIDING STEEL CYLINDRICAL ROLLING ELEMENTS

(54) Titre : ROULEMENT A ROULEAUX CYLINDRIQUES EN ACIER DE NITRURATION



(57) Abstract: The invention concerns a rolling bearing with relieved cylindrical rolling elements maintained in a cage (4) between a cylindrical inner raceway on an inner steel ring (2) and a cylindrical outer raceway on an outer steel ring (1) and bordered by at least an annular lateral flange (11) projecting substantially radially inwards on the outer ring (1). Said rolling bearing is such that at least the rolling elements (3) are made of deep nitriding steel, comprising 0.3 % of C, 3 % of Cr, 1 % of Mo, 0.25 % of V, and 0.15 % of Ni, prepared by double vacuum smelting and whereof at least the white nitride surface layer has been completely eliminated from at least all the working surfaces of the rolling elements (3) coming into contact with the rings (1, 2) and/or the cage (4). The invention is useful for mounting in rotation in particular stages of aircraft turbo-compressor rotors and turbojets.

(57) Abrégé : Le roulement à rouleaux (3) cylindriques dépouillés retenus dans une cage (4) entre un chemin de roulement interne cylindrique sur une bague intérieure (2) en acier et un chemin de roulement externe cylindrique sur une bague extérieure (1) en acier et bordé par au moins un épaulement (11) latéral annulaire en saillie sensiblement radialement vers l'intérieur sur la bague extérieure (1), est tel qu'au moins les rouleaux (3) sont en un acier de nitruration profonde, comprenant de l'ordre de 0,3 % de C, 3 % de Cr, 1 % de Mo, 0,2 % de V, et 0,15 de Ni, élaboré par double fusion sous vide et dont la couche blanche superficielle de nitrures a été complètement éliminée d'au moins toutes les surfaces travaillantes des rouleaux (3) venant en contact avec les bagues (1, 2) et/ou la cage (4). Application au montage en rotation en particulier d'étages de rotors de compresseurs de turbines et turboréacteurs d'aéronefs.

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